

Fachrichtung: Experimentelle Therapie und Funktionelle
Pathologie
im Institut für morphologische und funktionelle Veterinär-
Pathologie der Freien Universität Berlin

The "Journal of the American Veterinary Medical Association"
A Quantitative Analysis of its Publications
During the Years 1915 - 1970

Inaugural-Dissertation
zur
Erlangung des Grades eines
Doktors der Veterinärmedizin
an der
Freien Universität Berlin

vorgelegt von
William Chester Tepper
Tierarzt aus New York City

Berlin 1973

Journal Nr. 835

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For Lynn and Sharon

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I. Introduction

This work presents a detailed survey of the history and contents of the Journal of the American Veterinary Medical Association, which was and still is the most formative veterinary journal in North America. It is intended not only to detail the historical development of the journal, but also to demonstrate, through a quantitative analysis of the content, the development of the special interests and trends of veterinary science in America.

To facilitate correlation with similar research on European veterinary journals, this work has been patterned after the models written by G. Schützler, "Das Magazin für die gesamte Tierheilkunde 1835 - 1874, die Herausgeber Gurlt und Hertwig und die Veröffentlichungen" (3), "Das Archiv für wissenschaftliche und praktische Tierheilkunde, 1875 - 1944, und eine Analyse der Veröffentlichungen" (4), and the "Statistik und Entwicklung veterinärmedizinischer Disziplinen im Magazin für die gesamte Tierheilkunde, im Archiv für wissenschaftliche und praktische Tierheilkunde und in der Berliner und Münchener tierärztlichen Wochenschrift, 1835 - 1968" (5). Other works that were used as models for this dissertation were: "Die Berlin und Münchener tierärztliche Wochenschrift, ihre Geschichte und eine quantitative Analyse der Veröffentlichungen der Jahre 1889 - 1968", by B. Hertsch (2), "Das Schweizer Archiv für Tierheilkunde, und die Veröffentlichungen der Jahre 1883 - 1969", by F. Wenk (9), and "The Cornell Veterinarian, und eine quantitative Analyse der Veröffentlichungen der Jahre 1911 - 1970", by B. Franz (1).

II. The Journal of the American Veterinary Medical Association (J.A.V.M.A.)

A. History of the Journal of the American Veterinary Medical Association

The emergence of professional veterinary journals in the United States presents an accurate reflection of the development of the profession itself. No journal of real significance emerged until the American Veterinary Review appeared in 1877. The Farrier Magazine of 1818 and the American Veterinary Journal of the 1850's failed too speedily to have any lasting influence on either the status or the skills of the profession. The latter was published intermittently by George H. Dodd, who was perhaps the first veterinary journalist in America. However, with a sum total of fifteen graduate practitioners in the whole country, his reading public and corresponding finances were too meager to survive.

The first serious and comparatively successful attempt at a professional journal was, as already mentioned, the American Veterinary Review, first planned as a semiannual publication and first issued in January of 1877. Its immediate success encouraged its backers to make the publication a monthly. In 1882, the American Veterinary Review was taken over by Alexander F. Liautard, the editor, as a private venture. Most of its relatively little competition came from the Journal of Comparative Medicine and Veterinary Archives (1880 to 1903), the annual reports of the federal and state governments, and reports from a few veterinary schools (11). In 1895, less than 2,000 of the total 5,000 veterinarians in the United States subscribed to the three veterinary journals then published (10). At the end of the nineteenth century, the only publication which the United States Veterinary Medical Association had was a report of the proceedings of its annual convention. The first issue, of which 500 copies were printed, was the Proceedings of the U. S. Veterinary Medical

Association, 1891 - 1892 (11). The title was changed to Proceedings of the American Veterinary Medical Association, when the organization likewise changed its name in 1898 (11).

In accordance with the expressed opinion of the Executive Board of the American Veterinary Medical Association, it had been resolved, "...to take such measures as may be necessary to establish an official organ of the association as the Journal of the American Veterinary Medical Association". The prime factor in maintaining a journal was the expense of printing the Proceedings each year; these cost about \$1.00 a copy to print and mail, and members received them free as long as their dues (\$3.00) were paid. Moreover, this was a most inefficient arrangement, for most of the papers were printed in the Review anyway, frequently in advance of publication of the Proceedings (8).

It was the American Veterinary Review, which continued to improve in quality and reputation, that was finally acquired by the American Veterinary Medical Association in 1915 to serve as its official publication. The Association purchased the journal from Dr. Ellis, then its editor, for the reputed sum of \$2,500. Its name was changed to the Journal of the American Veterinary Medical Association, when first published as the October 1915 issue.

Dr. Pierre A. Fish was appointed the first editor of the Journal of the American Veterinary Medical Association. Just prior to becoming editor, he was professor of physiology at Cornell University, and the editor of The Cornell Veterinarian. Although now editor of the J.A.V.M.A., he also remained "responsible editor" for The Cornell Veterinarian until 1917 (1). Dr. Fish joined the Veterinary Corps as a major and consequently resigned his editorship in 1918. Dr. W. H. Dalrymple was appointed editor.

However, because of failing health, Dr. Dalrymple resigned the next year, and J. R. Mohler assumed the editorship (6). Dr. Charles Allen Cary was elected president of the A.V.M.A. in 1919 and at the 1920 meeting, he advocated revision of the A.V.M.A. constitution (7). One of the points that he stressed was the need for a permanent editor. He stated that frequent changes give the organization no stability or definitiveness of purpose. The Journal had already three editors and four secretaries since 1915. At the 1922 meeting of the A.V.M.A., it was decided to combine both the offices of editor and secretary into one full-time post of secretary-editor. Dr. H. Preston Hoskins was appointed to this post in March 1923. At the 1939 meeting in Memphis, Tennessee, Hoskins resigned his post in favor of Dr. L. A. Merillat, who served in the dual capacity of executive secretary (1939-1940) and editor-in-chief. He held both positions until Dr. John G. Hardenbergh became the executive secretary in January 1941 (12). Dr. Merillat continued to serve as editor-in-chief until his retirement in 1950. He was succeeded by R. C. Klussendorf who had been associate editor and assistant executive secretary of the A.V.M.A. since 1945 (8). Dr. Klussendorf resigned the following year, however, and was succeeded temporarily by C. R. Donham, until W. A. Aitken was appointed in February 1952. Dr. W. A. Aitken retired as editor-in-chief and was succeeded by D. A. Price on July 1, 1954. Dr. Price previously worked with the executive staff and some of the association councils. Of the nine previously mentioned veterinarians who served as part-time or full-time editors, their professional backgrounds were: practice 44.4%, teaching and/or research 33.3%, and other professional work 22.2% (13).

Table 1. Locations of the J.A.V.M.A. Offices

<u>Dates</u>	<u>City, State</u>	<u>Location</u>
Oct 1915 - Sep 1918	Ithaca, New York	
Oct 1918 - Dec 1919	Baton Rouge, Louisiana	
Jan 1920 - Feb 1923	Washington, D. C.	
Mar 1923 - Jun 1925	Detroit, Michigan	The Book Building
Jul 1925 - Apr 1932	Detroit, Michigan	The LaSalle Wacker Building
May 1932 - Jun 1940	Chicago, Illinois	Prairie Farmer Building
Jul 1940 - Dec 1970	Chicago, Illinois	600 S. Michigan Ave.

B. Configuration and Format

The general make-up of each copy of the journal has been basically the same since its inception. However, the make-up of its articles have shown an enormous change over the years. The editorial policy has been to publish high quality scientific articles having easy readability. Each issue contains an editorial section, a general section for original monographs on technical or professional subjects, sections for news, obituaries, abstracts of current literature, and a section on subjects related to concerns of veterinary surgeons. These sections have come under various headings over the years. The format of the journal has been rather dynamic, changing the headings of various sections, eliminating some and adding others, resulting in a modern scientific publication. An editorial section was evident since its inception. In the August 1, 1963 issue, a section on editorial viewpoints of other journals was added. The obituary section was originally titled "Necrology"; this was changed to "Deaths", and now has become a short listing in the "News" Section. In August 1946, the "News" section was divided into separate sections; in the July 1, 1961 issue, this section was printed upon a different colored paper (yellow), setting it off from the scientific manuscripts in the rest of the issue. Various other new or revised sections include those of "Surgery and Obstetrics", beginning in December 1939, "What is Your Diagnosis?" radiographic diagnostic problems (December 1954), "Clinical Pathological Conference" (July 1961), "Case Records of the Angell Memorial Hospital" (1965) "Fracture of the Month" (March 1968). Mr. Joseph M. Kotz, the legal counsel for the A.V.M.A., started a section in 1939 entitled "Legal Opinions". During the early years, the journal was issued monthly to A.V.M.A. members. In January 1956, the journal became a semi-monthly publication, and has continued to publish twice each month until the present time.

As was the Veterinary Review, the journal's page size was 6 x 8.75 inches, giving a printed page of 4 x 5.5 inches. In 1938, the page size was increased to 7 x 10 inches, resulting in a printed page of 5.5 x 8 inches. This increased the word capacity by about 59%. This larger size has remained through the year 1970.

Due to wartime (World War II) shortage of manpower needed for the production of pulpwood, there was a corresponding shortage of paper - newsprint - for magazine and newspaper publications. The J.A.V.M.A. was restricted by the War Production Board, limiting each issue to 96 pages, commencing in November 1943. This limited allocation of space placed an emphasis on scientific and professional subjects. As an example, in 1941, 1948, and 1953, approximately 61% of the journal space was allocated to manuscripts and case reports, 22% to news, 14% to abstracts and reviews, and 3% to editorials (11).

According to a 1963 survey of scientific articles on veterinary medicine published in the United States, the J.A.V.M.A. was responsible for approximately 25% (14).

A meeting of the Executive Board, in Chicago in 1929, ruled to increase the size of the journal. The journal's size was increased in February 1930.

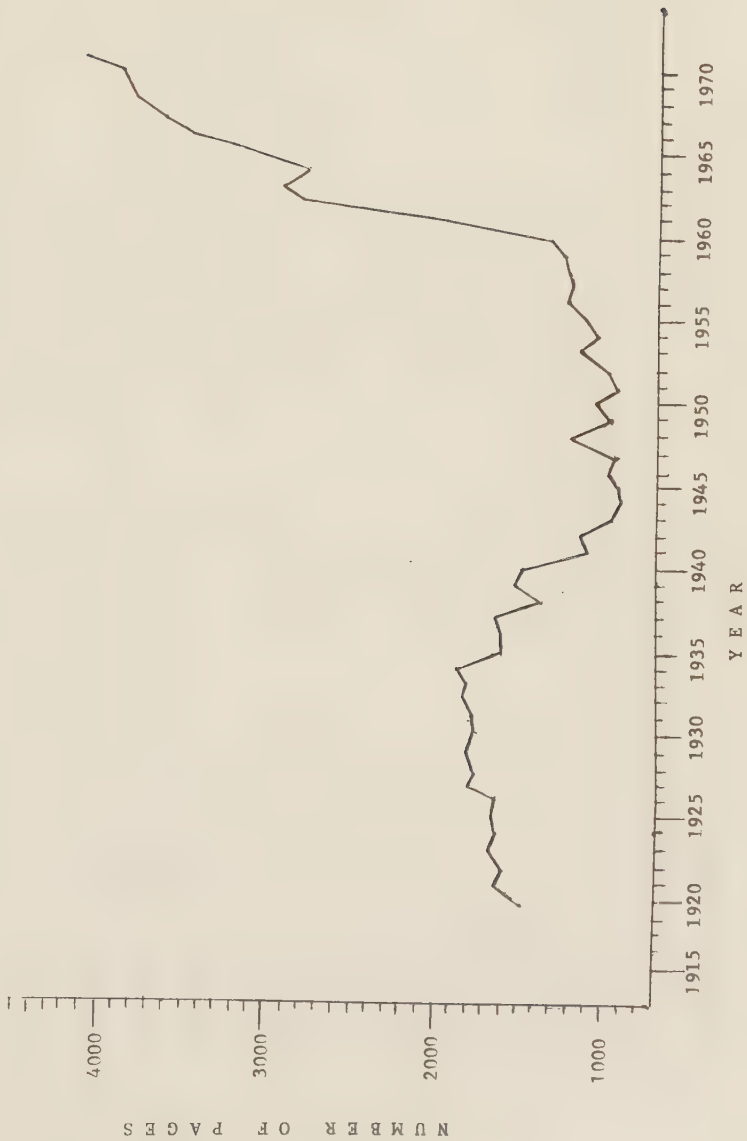
In January 1930, it was estimated that a complete set of the Review and J.A.V.M.A., bound and placed on a bookshelf, would require 13 running feet.

Change in index numbers from seven numbered volumes per year to two volumes per year of six numbers each, was established in January 1956. Each volume started in either January or July.

The journal is indexed for each issue, and twice yearly for each volume. There has never been an overall index published having a longer time span.

The J.A.V.M.A. has two sister publications. The American Journal of Veterinary Research, first published as a quarterly in October 1940, and then semi-monthly in 1959. It was established to relieve the J.A.V.M.A. of the increasing number of highly technical manuscripts which were being submitted. Another publication is the annual Proceedings Book, which contains the proceedings of the annual meetings of the A.V.M.A. These proceedings were usually included in the October issue of the journal, but were published separately in October 1950. The largest issue published by J.A.V.M.A. was the December 1, 1970 issue, containing 600 pages (see Graph I).

Graph I The Development of the J.A.V.M.A., Depicted by Number of Pages Published Yearly



C. Price Development

Table 2. Cost of the Journal in Dollars

<u>Year</u>	<u>Yearly Subscription</u>				<u>Single Copies</u>
	U. S. A.	Canada	Pan-America	Foreign	
1915 - 1942	3 ¹	*	*	*	*
1943 - 1961	7 ²	*	*	*	.75
1962	15	15.50	16.50	17	.75
1963 - 1965	20	22	*	*	1
1966 - 1969	25	27	*	*	1.25
1970	30	33	*	*	2

* = Statistics not available

¹ = Members paid \$5 dues, \$3 of which was for journal, \$2 of which supported the A.V.M.A.

² = For members only; includes membership dues. Non-members also paid \$7.

III. A Quantitative Analysis of the Publications

A. Categorization and Tabulation

For the purpose of this study, the publications of the J.A.V.M.A. were categorized into three main areas:

1. Original Articles
2. Case Reports
3. Editorials

All other written material in the J.A.V.M.A. was of minor importance for the purpose of this study, and has not been included. Such material includes advertisements, classified ads, obituary listings, announcements concerning opening of veterinary practices, dates of conferences, veterinary college graduation announcements, and abstracts of a superficial nature.

There was 10,871 articles analyzed during the time-span from October 1915 to December 1970. Of these, 74.8 % (8,136) were original articles; 25.2 % (2,735) were classified as case reports. In addition, there were 1,838 editorials written.

The time-span from 1915 - 1970 was divided into six sub-divisions. These are all decades, except for the first period which was five years and three months, representing the J.A.V.M.A. from its inception until December 1920. The sub-divisions were as follows:

1. October 1915 - December 1920
2. January 1921 - December 1930
3. January 1931 - December 1940

4. January 1941 - December 1950

5. January 1951 - December 1960

6. January 1961 - December 1970

The decade 1961 - 1970 had the largest representation of publications, with 3,069 individual articles, representing 28.2 % of the total manuscripts published during the 1915 - 1970 time-span.

The year with the highest number of articles was 1969, with 432 articles. In 1920, the least amount of articles were published, amounting to 106.

B. Authorship

For the purpose of this study, the authorship of each article has been classified into the following categories:

1. Number of contributing authors
2. Country of origin
3. Employment

Number of contributing authors. Articles were written by either one author, or more than one author. If more than one author contributed to the work, no discrimination was made as to the number of contributing authors. These articles were a result of team efforts; they were either a compilation of separate research, or a collaboration on a joint project.

Country of origin. No judgement was made as to the citizenship of authors. The criteria used for the classification of foreign authorship was that the research be carried out in countries other than the United States. When U. S. military veterinarians reported on matters not concerning their host countries, the authorship was categorized as "U.S.A." However, in cases where these articles concerned matters indigenous to their host countries, they were categorized as "foreign".

Vocational Affiliation. The employment of contributing authors was indicated in most instances. In cases where employment was not specifically indicated, determination was made based upon the following criteria: location (for example, Davis, California-university), source of funds, and registry of J.A.V.M.A. members. In instances of multiple authorship, affiliation was based upon the employment of the majority of contributing authors. Vocational affiliation was classified into the following categories:

- a) University. Author affiliated with a college or university.

b) Institute. Author affiliated with a research institute or research division of large pharmaceutical firms.

c) Government. Author affiliated with a governmental agency or the military.

d) Experimental Station. Author affiliation was included in this category whether or not the experimental station worked in conjunction with governmental agencies or with universities.

e) Private Practice. Authors were either self-employed practitioners or employed privately.

C. The Publications

1. The Original Articles

Original articles are manuscripts, descriptions, and reports concerning areas such as medical research, procedures, disease eradication programs, and the various interests of the veterinary medical profession. Articles in this category are all extensive in scope and content.

During the period 1915 - 1970, there were 8,136 original articles published. Of the six time periods analyzed, the decade 1961 - 1970 contained the largest amount of original articles, numbering 2,199 articles, and representing 71.7 % of all articles published that decade. With the exception of the mid-1930's and the early 1960's, there has been a general tendency for the number of original articles to increase yearly. However, the relationship of the number of original articles to that of total articles published has not displayed an increasing tendency. On a decade basis, the percent of original articles has ranged from 69.1 % to 79.8 %, with a mean of 74.8 %.

The total original articles published each year has ranged from 78 articles in 1941, to 319 articles in 1969 (see Graph II).

Single authorship of original articles amounted to 61.0 %, while 39.0 % of these articles were written by more than one author. During the early years of the J.A.V.M.A., represented by the period 1915 - 1920, only 16 % of the original articles were written by more than one author. There has been a steady increase, (with the exception of a decline for the decade

1941 - 1950) in the amount of articles written by more than one author.

The decade 1961 - 1970 showed that 52.4 % of these articles were written by more than one author. There has been a definite trend in veterinary publications towards team-work (see Table 3).

Domestic authorship (U.S.A.) constituted 93.9 % of all original articles.

This surprisingly parallels authorship of other major foreign publications.

Studies on the Schweizer Archiv für Tierheilkunde, showed that 91.8 %

were of domestic authorship (Swiss) (9). Domestic authorship (German) of

the Berliner und Muenchener tieraerztliche Wochenschrift constituted 90.4 % of the original articles (2). Foreign authorship of the J.A.V.M.A.

original articles constituted 6.1 %, with a slight increase during and

after the time periods of the two World Wars. The decade 1941 - 1950

represented the largest proportion, with 9.0 %; Canada was the largest

contributor representing 34.6 % of all foreign authorship. There has been

a definite and steady decreasing trend in articles written by Canadian

authors. The decade 1931 - 1940 had the least amount of foreign authorship,

with only 3.4 % (see Table 3).

Authors having university affiliation contributed 34.8 %. There has also

been an increasing trend towards university affiliation (with a small drop

during the decade 1941 - 1950), the maximum reaching 42.5 % for the decade

1961 - 1970. An increasing trend towards private affiliation is also in

evidence with a peak of 18.1 % during the decade 1951 - 1960, and a sharp

drop to 10.0 % during the decade 1961 - 1970 (see Table 3).

There are no discernable trends in the proportion of affiliation in

Graph II. Yearly Distribution of Original Articles During the Time-Span 1915 - 1970

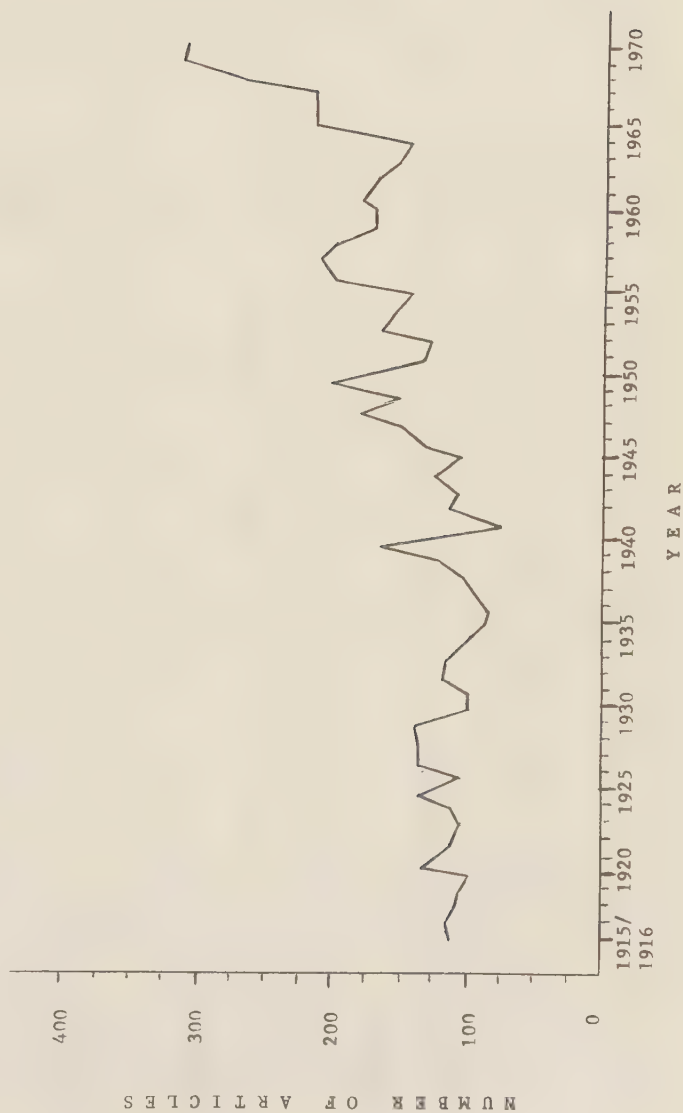


Table 3. Percent Distribution of Original Articles According to Authorship, Author's Nationality, and Author's Vocational Affiliation

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	Sum 1915 - 1970
Number of Articles	549	1215	1116	1368	1689	2199	8,136
<u>Authorship</u>							
One Author	84.0	78.0	67.7	68.8	48.1	47.6	61.0
More Than One	16.0	22.0	32.3	31.2	51.9	52.4	39.0
<u>Nationality</u>							
USA	92.9	93.8	96.6	91.0	92.1	96.1	93.9
Foreign	7.1	6.2	3.4	9.0	7.9	3.9	6.1
<u>Employment</u>							
University	27.1	32.5	33.4	29.5	34.0	42.5	34.8
Government	24.6	28.2	20.8	22.1	17.8	22.5	22.2
Private	13.3	14.0	15.2	17.3	18.1	10.0	15.5
Exp. Station	7.7	13.8	16.9	12.1	19.2	13.3	14.5
Institute	11.3	11.4	13.6	18.9	11.0	11.6	12.9

relationship to authorship from the government, experimental stations, and institutes. Governmental affiliation constituted 22.2 %, experimental station affiliation 14.5 %, and affiliation with an institute, 12.9 % of the total original articles (see Table 3).

Total number of original articles (8,136) were distributed into the following dominant disciplines:

<u>Discipline</u>	<u>%</u>
Microbiology	20.8
Pharmacology & Toxicology	13.0
Internal Medicine	12.2
Hygiene & Public Health	8.4
Surgery	8.1
Parasitology	6.5
Pathology	4.0

The category of Microbiology (20.8 %) includes the following disciplines:

<u>Discipline</u>	<u>%</u>
Bacteriology	10.7
Vaccination	5.0
Virology	4.4
Fungus	.7

Each of the remaining categories constitute less than 4.0 % of the total (see Table 4).

The remaining miscellaneous disciplines constituted 27.0 % of all the original articles:

Nutrition (3.9 %), General Practice (3.3 %), Animal Breeding and Genetics (2.3 %), Education (2.3 %), Physiology (2.0 %), Meat Inspection (1.9 %), History (1.5 %), Humaneness and Law (1.4 %), Military (1.3 %), Milk and Udder Disease (1.2 %), Economics (1.1 %), Anatomy and Histology (1.0 %), Obstetrics (1.0 %), Teratology (1.0 %), Restraintment and Handling (.9 %), Biochemistry (.4 %), Chicken Raising (.3 %), Psychology and Ethology (.2 %), and Conservation and Ecology (.1 %).

The topics of Internal Medicine, Surgery, and Pathology were sub-divided into animal species, and an overall general category not dealing with a specific animal type. Internal Medicine articles contained an 8.1 % proportion of articles in the General category. The most popular animal type was that of the Ruminant category (cow and sheep) with 29.0 %. This was followed by Canine (dog) with 19.6 % (see Table 5). There was a noticeable increase during the last two decades surveyed of original Internal Medicine articles written, with a high-point of 16.8 % during the decade 1961 - 1970 (see Table 4).

Original articles concerning Surgery reached the peak of popularity in the Canine category (31.7 %), followed by Ruminant (19.7 %). Only 14 original articles (2.1 %) dealt with Swine (see Table 5). The decade 1951 - 1960 represented the highest percentage of original Surgery articles, amounting to 11.4 %; however, the decade 1941 - 1950 showed the largest gain of all decades, 8.9 %, representing an almost 300 % gain from the previous decade (see Table 4).

A significant percentage of original articles concerning Pathology were

Table 4. Percent Distribution of Original Articles According to Disciplines

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1915 - 1970
Number of Articles:	549	1215	1116	1368	1689	2199	8136
In Percentage From:							
Internal Medicine	11.5	10.6	10.0	7.2	13.0	16.8	12.2
Pathology	3.3	4.4	5.5	2.9	4.1	4.0	4.0
Nutrition	3.1	2.5	3.3	8.6	4.0	2.2	3.9
Meat Inspection	3.5	2.7	2.8	2.6	.8	1.0	1.9
Surgery	4.2	4.0	3.0	8.9	11.4	11.0	8.1
Obstetrics	.4	1.2	2.0	2.0	.3	.5	1.0
Teratology	.7	.3	1.0	1.6	1.1	1.0	1.0
Parasitology	9.7	7.8	7.4	4.7	5.7	6.4	6.5
Pharmacology & Toxicology	8.0	7.5	7.4	16.1	20.5	12.3	13.0
Hygiene & Public Health	11.3	12.3	10.7	12.6	4.1	5.1	8.4
Milk and Udder Diseases	.5	.6	2.7	1.5	.9	1.1	1.2
Microbiology	22.9	24.7	26.3	12.3	20.7	21.0	20.8
Vaccination	(3.6)	(5.3)	(5.9)	(3.8)	(4.0)	(6.3)	(5.0)
Virology	(2.9)	(2.4)	(5.7)	(2.5)	(4.7)	(6.1)	(4.4)
Bacteriology	(16.2)	(16.9)	(14.5)	(6.0)	(10.7)	(7.1)	(10.7)
Fungus	(.2)	(.1)	(.2)	(-)	(1.3)	(1.5)	(.7)
Physiology	.7	2.4	1.9	1.0	1.8	2.8	2.0
Biochemistry	.2	.1	.5	.4	.2	.5	.4
Anatomy & Histology	.9	.7	1.3	.7	1.4	.9	1.0
Animal Breeding & Genetics	2.0	2.4	1.8	2.6	2.2	2.5	2.3
History	1.5	2.2	2.5	2.3	1.4	.3	1.5
Humaneness & Law	2.7	1.6	.9	1.5	.6	1.7	1.4
General Practice	2.4	5.0	4.3	3.8	2.4	2.3	3.3
Economics	1.5	1.9	1.3	1.2	.4	1.2	1.1
Chicken Raising	-	.3	1.0	.7	-	-	.3
Military	4.6	.8	.9	2.6	.9	.3	1.3
Education	4.6	3.6	.8	1.6	1.2	2.9	2.3
Psychology & Ethology	-	.1	.1	.1	-	.5	.2
Restraintment & Handling	-	.4	.4	.8	.8	1.7	.9
Conservation & Ecology	-	-	.4	-	.1	.3	.1

in the Ruminant category (26.4 %), followed by Canine (22.2 %). The least percentage of original Pathology articles were concerned with Equine (7.0 %) (see Table 5). The 1931 - 1940 decade contained the largest proportion of Pathology articles (5.5 %), dropping to a record low during the following decade to 2.9 % (see Table 4).

Table 5. Percent Distribution of Selected Disciplines According to Animal Species

	<u>General</u>	<u>Ruminant</u>	<u>Equine</u>	<u>Swine</u>	<u>Canine</u>	<u>Other</u>
Internal Medicine	8.1	29.0	12.3	9.0	19.6	22.0
Surgery	11.5	19.7	12.1	2.1	31.7	22.8
Pathology	7.6	26.4	7.0	7.9	22.2	28.9
Total of above three	9.2	25.5	11.4	6.5	24.1	23.4

The original articles concerned with Nutrition remained fairly constant throughout the 1915 - 1970 time-span, except for a sharp increase during the decade 1941 - 1950. During this period, the percentage of articles in this category increased from the previous decade (3.3 %) to 8.6 % (see Table 4).

The original articles concerning Pharmacology and Toxicology remained fairly constant during the first half of the total period surveyed (1915-1940) averaging 7.6 %. However, during the second half of the total time span (1941 - 1970), this figure more than doubled, to an average of 15.9 %. The reverse can be seen in the category of Hygiene and Public Health, with the percentages remaining constantly high during the first period 1915 - 1950 (an average of 11.7 %), and dropping off sharply during the last two decades (1951 - 1970) with an average of 5.1 % (see Table 4).

During the decade 1941 - 1950, the original articles concerning Pathology, Internal Medicine, Vaccination, Virology, Physiology, Anatomy and Histology, Conservation and Ecology, and Fungus, took a decline in the percentage of publications for these categories published; the latter two categories contained no articles whatsoever during this decade. The reverse can be seen in the categories of Nutrition, Hygiene and Public Health, Animal Breeding and Genetics, Humaneness and Law, and Military, where a sharp increase can be noted during this same period (see Table 4).

During the most contemporary period (1961 - 1970), the disciplines showing a notable increase over previous periods were Internal Medicine, Vaccination, Physiology, Humaneness and Law, Education, Psychology and Ethology, and Restraint and Handling. A notable decrease during this same period can be seen in the categories of Nutrition, Pharmacology and Toxicology, History and Military (see Table 4).

During the time-span 1915 - 1970, 56.2 % of the original articles concerned contagious disease; 35.2 % concerned non-contagious disease. Of all the original articles, 8.6 % had no applicability to contagiousness (see Table 6).

The percentage of original articles concerning contagious (infectious) disease reached a peak during the decade 1921 - 1930, with 67.9 %. From that point until the 1961 - 1970 decade, the percentage drops each decade, reaching the low during the 1961 - 1970 decade, with 47.6 %. Correspondingly, articles concerning non-contagious disease reached the high point during

the decade 1961 - 1970, dropping down during the 1921 - 1930 period, with only 21.0 % (see Table 6).

Table 6. Percent Distribution of Original Articles Concerning
Contagious and Non-Contagious Disease During the
Time-Span 1915 - 1970

Time-Span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1915- 1970
Contagious	64.1	67.9	66.3	52.9	52.4	47.6	56.2
Non-contagious	22.8	21.0	26.5	40.7	41.9	42.1	35.2
Non-applicable	13.1	11.1	7.2	6.4	5.7	10.3	8.6

During the time-span 1915 - 1970 almost half of all original articles were written about large animals (49.7 %). This proportion remained fairly constant throughout the years, ranging from 46.7 % (1961 - 1970) to 59.2 % (1915 - 1920). More specifically, the category of Ruminant contained the highest proportion, with 30.0 %. This too remained relatively constant over the years, ranging from a low of 26.4 % (1961- 1970) to a high of 33.8 % (1951 - 1960). The small animals were the second most popular, with 18.1 % of the original articles. In this category, the Canine comprised 14.2 % of small animals (see Table 7).

The General category did not deal with a specific animal, and numbered 14.7 % of these articles.

The Miscellaneous category was comprised of 9.1 % of these articles.

Of the miscellaneous animals, the group Avian was the most popular, numbering 2.7 %. During the entire time-span, 2.3 % of the original articles were non-applicable as to animal species.

There can be seen a marked decrease in the General category, with the exception of a small increase during the 1941 - 1950 decade.

The category Equine contained its highest percentage during the first (1915 - 1920) and last (1961 - 1970) time periods.

There is a definite increasing trend in original articles concerning small animals, with the highest increase occurring during the decade 1951 - 1960. A continuous increasing trend in both the Canine and Feline categories is noted as well.

Since the decade 1931 - 1940, there has been a notable decrease in articles concerning chickens.

A high-point can be clearly seen during the decade 1941 - 1950 in the number of articles specifically dealing with humans.

An increase in the Miscellaneous category can be noted during the past three decades, with a tremendous increase in the sub-category of Primates during the last decade. The use of Primates as laboratory animals, especially for space research, accounts for this large jump.

Table 7. Percent Distribution of Original Articles According to Animal Species

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1915- 1970
Number of Articles:	549	1215	1116	1368	1689	2199	8136
In Percent from the following Categories:							
GENERAL		24.6	20.2	12.3	16.9	13.0	10.4 14.7
Large, general	7.1	4.6	3.9	4.4	2.7	2.0	3.5
Ruminant	30.4	29.4	29.9	31.3	33.8	26.4	30.0
(Sheep)	(2.4)	(3.4)	(4.7)	(3.9)	(5.6)	(3.5)	(4.1)
Equine	12.9	5.3	7.3	7.5	3.6	11.9	8.1
Swine	8.7	8.1	10.0	7.4	9.5	6.4	8.1
TOTAL LARGE ANIMAL		59.2	47.4	51.1	50.5	50.7	46.7 49.7
Small, general	.9	2.5	2.1	2.2	3.5	2.9	2.6
Canine	5.1	7.7	9.8	10.5	16.9	22.6	14.2
Feline	-	.5	.4	.5	2.1	2.4	1.3
TOTAL SMALL ANIMAL		6.0	10.7	12.3	13.2	22.5	27.8 18.1
CHICKEN		3.1	12.3	12.8	6.2	3.4	1.5 6.0
Avian	.4	1.8	4.6	3.4	3.8	1.5	2.7
Primate	.2	.1	-	-	.2	1.9	.6
Fur	.7	1.5	1.0	1.6	1.4	.4	1.1
Zoo	.2	-	.3	.3	.3	.9	.4
Other	.5	1.3	2.0	.7	2.6	4.9	2.5
Human	1.3	1.6	1.5	2.9	1.4	2.3	1.9
TOTAL MISCELLANEOUS		3.3	6.3	9.3	8.8	9.7	11.9 9.1
NON APPLICABLE		3.8	3.0	2.1	4.4	.7	1.8 2.3

2. The Case Reports

Case reports are articles concerned with the reporting of individual cases, and in most instances, these articles are detailed and comprehensive; however, a continuum exists, due to the great strides in the development of medical reporting.

During the period 1915 - 1970, there were 2,735 case reports published. Of the six time periods analyzed, the decade 1961 - 1970 contained the largest amount of case reports numbering 870, and representing 28.3 % of all articles published that decade (see Table 8).

No predictable tendency can be noted concerning the increase or decrease of case reports published. Much fluctuation can be seen yearly during the entire time-span, with the only exception being the last 7 years (1964 - 1970), where a gradual increase can be observed yearly. On a decade basis, the percentage of case reports has ranged from 20.2 % to 30.9 %, with a mean of 28.5 %.

The total case reports published each year has ranged from 7 articles in 1920, to 118 articles in 1970.

Single authorship of case reports amounted to 60.5 %, while multiple authorship amounted to 39.5 %. Again the increasing trend towards multiple authorship can be clearly seen, with 6.2 % of these articles being written on this basis during the period 1915 - 1920, and increasing yearly to 66.2 % multiple authorship during the decade 1961 - 1970, (see Table 8).

Table 8. Percent Distribution of Case Reports According to Authorship, Author's Nationality, and Author's Vocational Affiliation

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	Sum 1915 - 1970
Number of Articles	162	310	500	347	546	870	2,735
<u>Authorship</u>							
One Author	93.8	86.8	77.2	75.2	53.8	33.8	60.5
More Than One	6.2	13.2	22.8	24.8	46.2	66.2	39.5
<u>Nationality</u>							
USA	89.5	90.6	97.4	91.9	93.6	94.4	93.7
Foreign	10.5	9.4	2.6	8.1	6.4	5.6	6.3
<u>Employment</u>							
University	19.8	22.3	23.8	20.5	34.6	41.5	30.7
Government	11.1	14.2	11.4	13.8	7.9	14.4	12.2
Private	63.0	41.0	38.8	49.0	45.2	28.6	39.8
Exp. Station	1.6	14.2	17.0	11.0	6.8	6.6	9.8
Institute	1.4	8.4	8.8	5.8	5.1	9.3	7.4

Domestic authorship amounted to 93.7 % of case reports while 6.3 % were written by foreign authors. The period 1915 - 1920 contained the highest proportion of articles written by foreign authors, 10.5 %. This figure fell to 2.6 % during the decade 1931 - 1940 (see Table 8).

Authors in private practice contributed the highest proportion of case reports representing 39.8 % of all case reports published. The 1915 - 1920 period contained the highest proportion, with 63.0 % private practitioners. A worthy contribution was made by authors having university affiliation (30.7 %), with a high point of 41.5 % during the last decade. With the exception of a decline in the number of authors contributing who are either privately employed or affiliated with an experimental station during the second half of the total time-span (1941 - 1970), no specific trends can be noted. Experimental station affiliation amounted to 9.8 %, governmental affiliation, 12.2 %, and institute affiliation, the least of all categories, with 7.4 % of all case reports (see Table 8).

The dominant disciplines represented in case reports amounted to the following distributions, in descending order:

<u>Discipline</u>	<u>%</u>
Internal Medicine	24.3
Pathology	21.1
Surgery	14.2
Microbiology	10.0
Pharmacology and Toxicology	6.6
Parasitology	6.4
Teratology	5.5

Table 9. Percent Distribution of Case Reports According to Disciplines

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1915-1970
Number of Articles:	162	310	500	347	546	870	2735
In Percentage From:							
Internal Medicine	23.5	21.6	15.8	14.4	22.5	35.4	24.3
Pathology	19.1	22.9	23.2	21.6	22.2	30.1	21.1
Nutrition	.6	.6	1.8	3.7	.5	.2	1.1
Meat Inspection	-	-	.2	-	-	-	.03
Surgery	16.7	13.2	9.2	18.7	20.2	11.4	14.2
Obstetrics	4.9	1.9	4.8	5.2	2.7	.3	2.7
Teratology	8.0	4.2	5.2	4.3	7.0	5.2	5.5
Parasitology	4.3	9.4	8.8	3.5	5.7	6.1	6.4
Pharmacology & Toxicology	4.9	7.7	11.2	9.2	6.2	3.1	6.6
Hygiene & Public Health	1.9	1.9	1.2	2.3	.2	.1	.9
Milk & Udder Diseases	2.5	.3	2.6	2.3	.5	-	1.1
Microbiology	9.2	12.9	12.4	10.4	11.1	6.8	10.0
Vaccination	(1.9)	(1.3)	(.8)	(-)	(.5)	(.3)	(.6)
Virology	(1.2)	(1.0)	(3.0)	(2.6)	(2.2)	(.9)	(1.8)
Bacteriology	(4.9)	(10.6)	(8.0)	(6.9)	(6.0)	(3.0)	(6.0)
Fungus	(1.2)	(-)	(.6)	(.9)	(2.4)	(2.6)	(1.6)
Physiology	-	.6	.2	.3	-	-	.1
Biochemistry	.6	-	-	-	-	-	.03
Anatomy & Histology	-	-	.8	-	-	-	.1
Animal Breeding & Genetics	1.2	1.6	1.2	3.2	.9	.7	1.3
History	-	-	-	-	-	-	-
Humaneness & Law	.6	-	-	.3	-	-	.1
General Practice	1.2	.6	.2	-	-	-	.2
Economics	.6	-	-	-	-	-	.03
Chicken Raising	-	-	-	.3	-	-	.03
Military	-	-	-	.3	-	-	.03
Education	-	.3	-	-	-	-	.03
Psychology & Ethology	-	-	.2	-	-	.1	.1
Restraintment and Handling	-	-	.8	-	.2	.3	.3
Conservation and Ecology	-	-	.2	-	-	-	.03

The category Microbiology (10.0%) includes the following disciplines:

<u>Discipline</u>	<u>%</u>
Bacteriology	6.0
Vaccination	.6
Virology	1.8
Fungus	1.6

The remaining disciplines constituted less than 11.9 % of the total. They are as follows: Obstetrics (2.7 %), Animal Breeding and Genetics (1.3 %), Nutrition (1.1 %), Hygiene and Public Health (.9 %), Restraintment and Handling (.3 %), General Practice (.2 %), Anatomy and Histology (.1 %), Humaneness and Law (.1 %), Physiology (.1 %), Psychology and Ethology (.1 %), Biochemistry (.03 %), Chicken Raising (.03 %), Conservation and Ecology (.03 %), Economics (.03 %), Education (.03 %), Meat Inspection (.03 %), and Military (.03 %). No case reports were written in the category of History (see Table 9).

As with original articles, the case reports concerned with Internal Medicine, Surgery, and Pathology were sub-divided into animal species, plus an overall general category dealing with non-specific animal types.

In the category of Internal Medicine, the most popular animal species was Canine, representing 46.2 % of all species. Ruminant followed, with 18.0 % (see Table 10). The decade 1961 - 1970 contained the largest amount of case report Internal Medicine articles, numbering 35.4 % (see Table 9).

Case reports concerning Surgery reached a high point also in the category of Canine(46.9 %). This was followed by Equine (20.4 %) (see Table 10). During the decade 1951 - 1960, the highest proportion of case report Surgery articles were published, amounting to 20.2 % (see Table 9).

Case report Pathology articles also favored the Canine category, with 41.3 % of the animal species. Following this in popularity was the Ruminant, with 17.6 % (see Table 10). The last decade contained the largest number of Pathology publications, numbering 30.1 % (see Table 9).

Table 10. Percent Distribution of Selected Disciplines
According to Animal Species

	<u>General</u>	<u>Ruminant</u>	<u>Equine</u>	<u>Swine</u>	<u>Canine</u>	<u>Other</u>
Internal Medicine	.5	18.0	13.8	4.2	46.2	17.3
Surgery	1.3	16.5	20.4	1.5	46.9	13.4
Pathology	8.9	17.6	10.0	5.3	41.3	24.9
Total of Above Three	.8	17.5	13.8	4.0	44.4	19.4

Several categories of case reports reached their high point during the 1941 - 1950 decade: Obstetrics (5.2 %), Nutrition (3.7 %), Hygiene and Public Health (2.3 %), Animal Breeding and Genetics (3.2 %), Chicken Raising (.3 %), and Military (.3 %) (see Table 9).

The percentage of case report Obstetrics articles has dropped off

sharply during the last decade, with only .3 % published of all case reports during that decade. The same can be observed of Nutrition articles (.2 %), articles concerning Pharmacology and Toxicology (3.1 %), Virology (.9 %), and Bacteriology (3.0 %) (see Table 9).

The case report categories of Economics and Biochemistry had contributions during the time period 1915 - 1920 only, numbering .6 % each. The only case report Meat Inspection article was written during the decade 1931 - 1940. This was also the case with the categories of Chicken Raising and Military, each with only .3 % during the 1941 - 1950 decade (see Table 9).

The number of case reports written concerning Milk and Udder Diseases has tended to increase since the 1931 - 1940 decade, with no articles written whatsoever during the last decade.

There have not been any case reports written about General Practice since the decade 1931 - 1940.

During the 1915 - 1920 time-span, 29.6 % of all case reports were written about contagious disease, while 70.1 % were concerned with non-contagious disease. Only .4 % of all case reports were non-applicable in these categories (see Table 11).

A peak was reached during the decade 1921 - 1930, with 41.9 % of the case reports being of contagious disease. Closely following was the following decade (1931 - 1940), with 41.4 %. The least amount of articles concerning contagious disease was 18.9 % (1961 - 1970).

The high point of non-contagious disease articles occurred during the last decade (80.9 %). The low point was during the 1921-1930 decade, with 57.7 % being of a non-contagious nature.

Table 11. Percent Distribution of Case Reports Concerning
Contagious and Non-Contagious Disease During the
Time-Span 1915 - 1970

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1915- 1970
Contagious	28.4	41.9	41.4	37.8	24.0	18.9	29.6
Non-contagious	71.0	57.7	57.8	61.7	76.0	80.9	70.1
Non-applicable	.6	.3	.8	.6	-	.2	.4

During the time-span 1915 - 1970 the largest proportion of case reports were written about small animals (43.2 %); 36.7 % of the case reports specifically concerned the Canine category. The articles concerning large animals comprised 40.8 % of the case reports, of which 22.8 % dealt with the Ruminant category (see Table 12).

The Miscellaneous category comprised 12.1 % of the case reports. The group Avian was most popular, comprising 3.4 %.

The General category contained 1.1 % of the case reports not dealing with a specific animal type. A total of 2.9 % of the articles were published concerning Chickens. No case reports were written during the last decade (1961 - 1970) dealing specifically with Chickens.

An increasing trend can be clearly seen in the number of articles

published concerning small animals. The category Canine increases throughout the entire time-span, as well as the Feline category. The most recent decade (1961 - 1970) gives evidence of the relative importance of the small animal category as far as case reports are concerned. That decade shows a relationship of more than 3:1 (small animal : large animal), whereas in the early years (1915 - 1920) this relationship stood close to 1:6.

A decreasing trend is noted in the amount of case reports concerning large animals, especially during the last two decades (1951 - 1970), where a sharp decline can be noted. A decreasing trend can also be seen in the number of General articles published. This is due to the fact that the editors have become more discriminative over the years, only accepting well-written articles (according to their guidelines) resulting in case reports dealing with specific animals.

In the Miscellaneous category, a sharp increase in the number of articles published concerning Primates can be seen during the last half of the entire time-span. The greatest increase occurred in the past decade (1961 - 1970), with 4.9 % of all case reports concerning Primates. This can also be attributed to an increased use of these animals in laboratory and space research.

Table 12. Percent Distribution of Case Reports According to Animal Species

Time-spent	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1915- 1970
Number of Articles:	162	310	500	347	546	870	2735
In Percent from the following Categories:							
GENERAL	4.3	-	3.2	1.6	.9	.2	1.1
Large, general	.6	-	.6	.6	-	.1	.3
Ruminant	32.1	35.5	30.8	32.0	19.8	10.1	22.8
(Sheep)	(3.7)	(4.8)	(5.6)	(4.6)	(1.5)	(.8)	(2.9)
Equine	35.2	16.8	11.6	14.7	9.9	8.7	12.7
Swine	6.8	10.3	10.4	3.7	2.9	1.6	5.0
TOTAL LARGE ANIMAL	74.7	62.6	53.4	51.0	32.6	20.6	40.8
Small, general	-	.3	.8	.6	.5	.6	.5
Canine	13.0	15.2	21.4	29.7	45.6	54.7	36.7
Feline	.6	1.6	2.8	3.5	6.4	11.0	6.0
TOTAL SMALL ANIMAL	13.6	17.1	25.0	33.7	52.7	66.3	43.2
CHICKEN	3.7	7.7	5.6	1.8	-	-	2.9
Avian	-	4.2	7.2	4.9	3.1	1.3	3.4
Primate	.6	.3	.2	.6	1.5	4.9	2.0
Fur	1.2	1.3	2.0	2.3	.6	.1	1.3
Zoo	-	1.3	.4	1.7	2.4	2.4	1.7
Other	.6	.6	3.8	1.1	3.8	4.1	3.0
Human	1.2	1.6	.8	.9	.2	.2	.6
TOTAL MISCELLANEOUS	3.7	9.4	14.4	11.5	12.8	13.1	12.1
NON APPLICABLE	-	-	-	-	-	-	-

3. The Total Articles

During the time-span 1915 - 1970, the total number of articles published in the J.A.V.M.A. was 10,871. These ranged from a low in 1920 of 106 articles, to a high in 1969 of 432 articles (see Graph II). Of these, 74.8 % (8,136) were original articles; 25.2 % (2,735) were classified as case reports. The relative percentages ranged as follows:

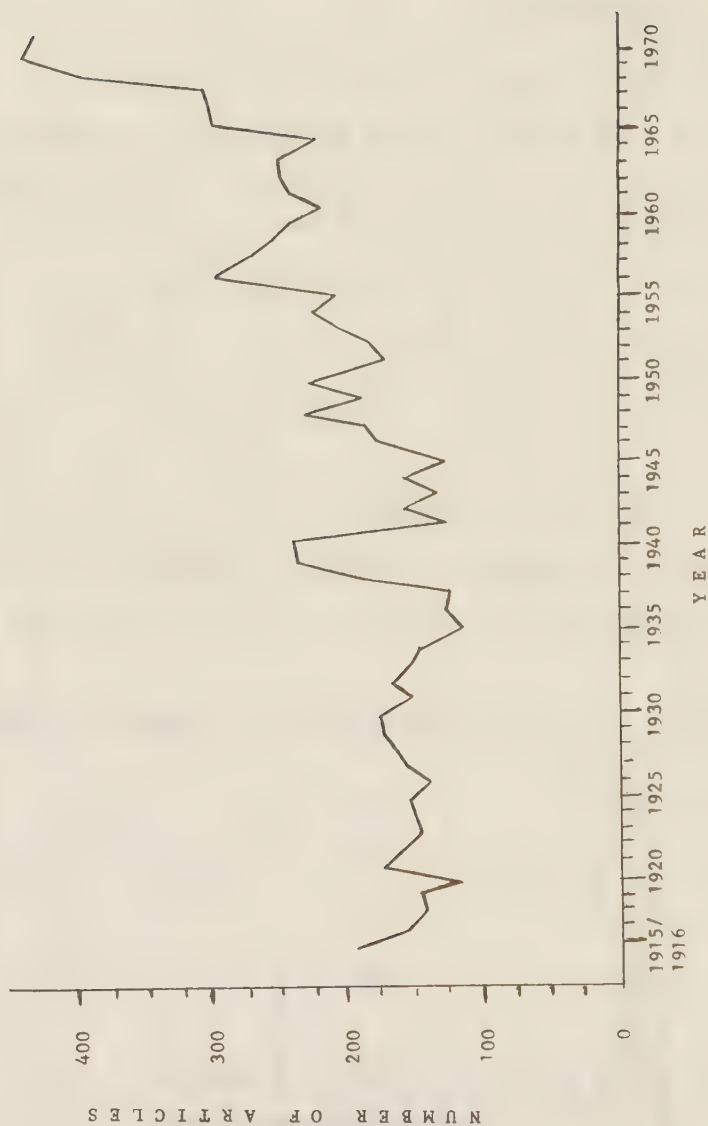
Time-Span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970
Original	77.2	79.7	69.1	79.8	75.6	71.7
Case Report	22.8	20.3	30.9	20.2	24.4	28.3

The total number of articles published has shown an increasing trend. The only major deviations from this trend occurred during the economic depression of the 1930's and the rationing of paper during World War II. The distribution of articles according to the major time-spans were as follows:

<u>Time-Span</u>	<u>Number of Articles</u>	<u>Percentage of Total</u>
1915 - 1920	711	6.5
1921 - 1930	1525	14.0
1931 - 1940	1616	14.9
1941 - 1950	1715	15.8
1951 - 1960	2235	20.6
1961 - 1970	3069	28.2

Single authorship of the total number of articles published amounted to 60.9 %, while 39.1 % of the articles were written by more than one

Graph III. Yearly Distribution of Total Articles During the Time - Span 1915 - 1970



author. There has been a definite increasing trend as to a plurality of effort in veterinary publication. A large increase in the publication of works written by more than one author occurred in the 1950's. The decade 1941 - 1950 showed that 29.9 % of all articles were written by more than one author. During the years 1951 - 1960 this jumped to 50.5 % and has continued to increase.

Domestic authorship (U.S.A.) constituted 93.9 % of all articles published. This high proportion remained relatively constant throughout the years (see Table 13).

Articles originating from 69 countries were included in the J.A.V.M.A. during the time-span 1915 - 1970. Of these countries, Canada made the largest contribution, with 204 articles, representing 31.1 % of the total number of articles with foreign authorship.

Due to the dynamic geo-political situation of the twentieth century, it was necessary to establish criteria in order to provide continuity. Contributions originating in politically divided countries have been indicated as to their common names (China, Germany, Korea). Localities formerly part of contemporary countries (Koenigsberg categorized as Germany, for example) and also their colonies have been listed according to their former names. Localities which were part of former political entities no longer in existence have been indicated as to their present names (Tel Aviv categorized as Israel, for example).

The following is a compilation of contributing countries. The number in parenthesis indicates the amount of articles originating from each country: Canada (204), Phillipines (51), Great Britain (50), Sweden (37), Germany (24), France (23), Egypt (20), Australia (19), Mexico (17), Holland (15), Peru (14), Japan (13), Denmark (12), Brazil (11), India (11). China (9), British West Indies (7), Kenya (7), Norway (7), Panama (6), Switzerland (6), Israel (5), USSR (5), Argentina (4), Columbia (4), Guatamala (4), Haiti (4), Italy (4), Korea (4), Malaysia (4), Ceylon (3), Dominican Republic (3), Greece (3), Java (3), Barbados W.I. (2), Czechoslovakia (2), Equador (2), Hungary (2), Jamaica (2), Rhodesia (2), Spain (2), Uruguay (2), Venezuala (2), Viet Nam (2), Aruba (Netherlands) (1), Austria (1), Bahamas (1), Belgium (1), Costa Rica (1), Finland (1), Ireland (1), Malta (1), New Zealand (1), Puerto Rico (1), Sudan (1), Trinidad (1), Turkey (1), West Pakistan (1).

Authors having university affiliation contributed 33.8 %. As was the case discussed in the original article section there has been an increasing trend towards university affiliation (with a small drop during the decade 1941 - 1950), the maximum reaching 42.2 % for the decade 1961 - 1970. No discernable trends are evident concerning authors with private affiliation. This category contributed 21.6 % of the total articles published. There was a sharp drop to 15.3 % in the decade 1961 - 1970, from the preceeding decade percentage of 24.7 %. This is in distinct contrast to the often expressed desires of the editors to publish more articles from the private sector of the veterinary profession.

Table 13. Percent Distribution of all Articles According to Authorship, Author's Nationality, and Author's Vocational Affiliation

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	Sum 1915 - 1970
Number of Articles	711	1525	1616	1715	2235	3069	10,871
<u>Authorship</u>							
One Author	86.2	79.9	70.7	70.1	49.5	43.7	60.9
More Than One	13.8	20.1	29.3	29.9	50.5	56.3	39.1
<u>Nationality</u>							
USA	92.1	93.2	96.8	91.2	92.5	95.6	93.9
Foreign	7.9	6.8	3.2	8.8	7.5	4.4	6.1
<u>Employment</u>							
University	25.5	30.4	30.4	27.6	34.2	42.2	33.8
Government	21.5	25.4	17.9	20.5	15.4	20.2	19.7
Private	37.0	19.5	22.5	23.7	24.7	15.3	21.6
Exp. Station	6.9	13.9	17.0	11.9	16.2	11.4	13.3
Institute	9.1	10.8	12.1	16.3	9.5	11.0	11.5

However, it should be noted that the private sector did contribute the most (39.8 %) to the case report portion. This was also secondary to university contributions during the decade 1961 - 1970 (see Table 13).

Although it cannot be quantitatively proven, it is logical to assume that the interests and professional occupations of the practitioner are oriented towards case reports, whereas those of the university affiliated author tends towards the original articles. This assumption is generally substantiated by the above statistics.

The total number of articles published (10,871) were distributed into the following dominant disciplines:

<u>Discipline</u>	<u>%</u>
Microbiology	18.0
Internal Medicine	15.2
Pharmacology & Toxicology	11.4
Surgery	9.6
Pathology	9.2
Hygiene & Public Health	6.5
Parasitology	6.5
Nutrition	3.2

Table 14. Percent Distribution of Total Articles According to Disciplines

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1915 - 1970
Number of Articles:	711	1525	1616	1715	2235	3069	10,871
In Percentage From:							
Internal Medicine	14.2	12.9	11.8	8.6	15.4	22.1	15.2
Pathology	6.9	8.2	11.0	6.6	8.5	11.4	9.2
Nutrition	2.5	2.1	2.8	7.6	3.2	1.7	3.2
Meat Inspection	2.7	2.2	2.0	2.0	.6	.7	1.4
Surgery	7.0	5.8	4.9	10.9	13.5	11.1	9.6
Obstetrics	1.4	1.4	2.8	2.7	.9	.5	1.4
Teratology	2.4	1.1	3.0	2.2	2.5	2.2	2.1
Parasitology	8.4	8.1	7.9	4.4	5.7	6.3	6.5
Pharmacology & Toxicology	7.3	7.5	8.6	14.7	17.0	9.7	11.4
Hygiene & Public Health	9.1	10.2	7.7	10.5	3.2	3.7	6.5
Milk & Udder Diseases	1.0	.5	2.7	1.6	.8	.8	1.2
Microbiology	19.7	22.3	22.0	11.9	18.4	16.9	18.0
Vaccination	(3.2)	(4.5)	(4.3)	(3.0)	(3.2)	(4.6)	(3.9)
Virology	(2.5)	(2.1)	(4.9)	(2.5)	(4.1)	(4.6)	(3.7)
Bacteriology	(13.6)	(15.6)	(12.5)	(6.2)	(9.5)	(5.9)	(9.5)
Fungus	(.4)	(.1)	(.3)	(.2)	(1.6)	(1.8)	(.9)
Physiology	.6	2.0	1.4	.8	1.4	2.0	1.5
Biochemistry	.3	.1	.4	.3	.1	.4	.3
Anatomy & Histology	.7	.5	1.1	.5	1.0	.6	.8
Animal Breeding & Genetics	1.8	2.2	1.6	2.7	1.9	2.0	2.1
History	1.1	1.8	1.7	1.8	1.1	.2	1.1
Humaneness & Law	2.3	1.2	.6	1.2	.4	1.2	1.0
General Practice	2.1	4.1	3.0	3.0	1.8	1.6	2.5
Economics	1.3	1.5	.9	.9	.3	.8	.9
Chicken Raising	-	.3	.7	.6	-	-	.2
Military	3.5	.7	.6	2.2	.7	.2	.9
Education	3.5	3.0	.6	1.3	.9	2.1	1.7
Psychology & Ethology	-	.1	.1	.1	-	.4	.1
Restraintment & Handling	-	.3	.6	.6	.6	1.3	.7
Conservation & Ecology	-	-	.3	-	.1	.2	.1

The category of Microbiology (18.0 %) includes the following disciplines:

<u>Discipline</u>	<u>%</u>
Bacteriology	9.5
Vaccination	3.9
Virology	3.7
Fungus	.9

Each of the remaining disciplines constitute less than 2.5 % of the total, constituting 20.0 % of all articles published. The remaining miscellaneous disciplines are as follows:

General Practice (2.5 %), Animal Breeding and Genetics (2.1 %), Teratology (2.1 %), Education (1.7 %), Physiology (1.5 %), Meat Inspection (1.4 %), Obstetrics (1.4 %), Milk and Udder Diseases (1.2 %), History (1.1 %), Humaneness and Law (1.0 %), Economics (.9 %), Anatomy and Histology (.8 %), Restraintment and Handling (.7 %), Biochemistry (.3 %), Chicken Raising (.2 %), Conservation and Ecology (.1 %), Psychology and Ethology (.1 %) (see Table 14).

The topic of Internal Medicine contained 15.2 % of all articles written. There is evidence of a decreasing trend from the early years until the decade 1941 - 1950, where it reached its low of 8.6 %. These articles then increased over the last two decades ending with 22.1 % for the decade 1961 - 1970. This figure (22.1 %) is almost twice the proportion of the next most popular discipline, Pathology (11.4 %) for that decade (see Table 14). The overall Internal Medicine articles contained only

a 5.0 % proportion in the general category. This is due to the very low proportion (.5 %) that the case reports represented. The most popular animal type was that of the canine, with 30.3 % followed by the ruminant, with 24.6 % (see Table 15).

Articles concerning Surgery did not show any definite trends. There is, however, an increase noticeable following the second World War until the present, with a high point during the decade 1951 - 1960, with 13.5 % (see Table 14). Of all articles written, 9.2 % concerned Surgery, and of that 37.3 % were written specifically about the dog (canine). The ruminant represented less than half that of the dog, with 18.5 %. General Surgery articles not concerning a specific animal species totaled 7.7 % (see Table 15).

Of the total Pathology articles, 35.0 % concerned the dog (canine). This represented the largest proportion of all animal species. It is of note to mention that 79.6 % of the Pathology articles were of a case report nature, as opposed to 25.2 % for all articles written. The high percentage of case reported Pathology-canine articles, 41.3 %, accounts for this prevalence. No discernable trends are in evidence for the total Pathology category. These articles accounted for 9.2 % of all articles written, (see Table 14).

Table 15. Percent Distribution of Selected Disciplines

According to Animal Species

	<u>General</u>	<u>Ruminant</u>	<u>Equine</u>	<u>Swine</u>	<u>Canine</u>	<u>Other</u>
Internal Medicine	5.0	24.6	12.9	7.1	30.3	20.1
Surgery	7.7	18.5	15.2	1.9	37.3	19.3
Pathology	3.1	20.5	9.1	6.2	35.0	26.2
Total of Above Three	5.3	21.8	12.5	5.4	33.6	21.5

Those articles concerned with Pharmacology and Toxicology represented 11.4 % of all articles, the degree of which varied over the years. There has been a definite increasing trend, especially during the era of the discovery and practical use of antibiotics, in the 1940's and 1950's. A high point (17.0 %) was reached during the decade 1951 - 1960, and has declined since then.

All disciplines within the field of Microbiology showed a mean of 18.0 %, the majority of which were represented by Bacteriology (9.5 %). No trends can be seen for the remaining microbiological fields, with perhaps an exception in the discipline of Mycology (Fungus), which showed a sharp increase during the last two decades (1951 - 1970) (see Table 14).

Hygiene and Public Health has shown a definite decrease during the last two decades. The mean was 6.5 % of all articles published. Meat Inspection, Obstetrics, Milk and Udder Diseases, and General Practice all showed a relative steady proportion of all articles written, with a decline during the last two decades (see Table 14).

The proportion of articles written about Nutrition also remained relatively constant, with a single large increase during and after World War II, resulting in a mean for the decade 1941 - 1950 of 7.6 %, as compared to a total contribution of 3.2 %. This reflects the heightened interest in Nutrition caused by the threat of scarcities due to World War II. A similar trend can be seen in the increased amount of editorials dealing with nutrition during this time period (see Table 14).

The discipline of Teratology has been presented overwhelmingly as case reports (5.5 %). This field is unique in that its manuscripts have mainly concerned themselves with individual cases rather than comprehensive studies of the anomalies.

Articles concerned specifically with Chicken Raising have contributed only a very small proportion to all articles published (.2 %). There was an increase in the number of these articles from the mid-1920's to the 1940's. This not only parallels those articles specifically dealing with *Salmonella pullorum* (see Graph VI), but also the era of the initiation of intensive poultry raising.

During the war years, 1915 - 1920 and 1941 - 1950, there were more articles written upon matters directly concerning the military. This, however, cannot be said of the Viet Nam War period. Articles of a military nature constituted .9 % of all articles written (see Table 14).

During the time-span 1915 - 1970, 49.5 % of all articles concerned contagious diseases; 44.0 % concerned non-contagious diseases. Of all articles, 6.5 % had no applicability to contagiousness.

The percentage of articles concerning contagious diseases reached a peak during the decade 1921 - 1930, with 62.6 % (see Table 16).

Although articles concerning contagious diseases followed the same trend in both original and case report types, there was a notable difference in the degree to which each was represented. Of all original articles written, 56.2 % concerned contagious diseases, whereas only 29.6 % of the case reports were in this category (see Tables 6, 11).

The distribution of articles concerning contagious diseases roughly followed the same distribution of articles written about the infectious diseases of brucellosis, pullorum disease and tuberculosis (see Graphs IV, VI, VII).

During the time-span 1915 - 1970, 11.3 % of all articles did not concern a specific animal type. They are included in the General category. Articles of a general type followed two declining distribution curves, one from 1915 - 1940, the other from 1941 - 1970 (see Table 17).

Almost half of the articles (47.4 %) were written about large animals. Ruminants constituted 59.5 % of the large animal category, and 28.2 % of all articles. The ruminant category remained relatively constant over the years with one significant decrease during the decade 1961 - 1970. This was due to simultaneous increases in both the canine and the equine categories (see Table 17).

Table 16. Percent Distribution of Total Articles Concerning Infectious Diseases

During the Time-Span 1915-1970						
Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970
Number of Articles:	711	1525	1616	1715	2235	3069
						10,871
Contagious	56.0	62.6	58.6	49.8	45.5	39.4
						49.5
Non-contagious	33.7	28.5	36.2	45.0	50.2	53.1
						44.0
Non-applicable	10.3	8.9	5.2	5.2	4.3	7.5
						6.5

Table 17. Percent Distribution of Total Articles According to Animal Species

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1915- 1970
Number of Articles:	711	1525	1616	1715	2235	3069	10,871
In Percent from the following Categories:							
GENERAL		20.0	16.8	9.0	13.6	9.9	7.5 11.3
Large, general	5.6	3.7	2.8	3.6	2.0	5.3	2.7
Ruminant	30.8	30.6	30.2	31.4	30.4	21.8	28.2
(Sheep)	(2.7)	(3.7)	(5.0)	(4.0)	(4.6)	(2.8)	(2.8)
Equine	18.0	7.7	8.7	8.9	6.0	11.0	9.3
Swine	8.3	8.6	10.1	6.6	7.9	5.0	7.3
TOTAL LARGE ANIMAL		62.7	50.5	51.8	50.6	46.3	39.3 47.4
Small, general	.7	2.1	1.7	1.9	2.8	2.2	2.1
Canine	6.9	9.2	13.4	14.4	23.9	31.7	19.8
Feline	.1	.7	1.2	1.1	3.1	4.8	2.5
TOTAL SMALL ANIMAL		7.7	12.0	16.2	17.4	29.9	38.7 24.4
CHICKEN		3.2	11.4	10.6	5.5	3.0	1.0 5.2
Avian	.3	2.3	5.4	3.7	3.7	1.4	2.9
Primate	.3	.1	.1	.1	.5	2.7	.9
Fur	.8	1.4	1.3	1.7	1.5	.3	1.1
Zoo	.1	.3	.3	.6	.8	1.3	.7
Other	.6	1.2	2.5	.8	2.9	4.7	2.6
Human	1.3	1.6	1.3	2.4	1.1	1.7	1.6
TOTAL MISCELLANEOUS		3.4	6.9	10.9	9.3	10.5	12.2 9.9
NON APPLICABLE		3.0	2.4	1.5	3.5	.5	1.3 1.8

The prevalence of equine articles has shown an overall decreasing trend over the years. This was most conspicuous during the 1920's, a time when the United States oriented itself towards motorized transportation and farm work. As interest for the horse as a sport animal increased during the 1960's, so did the extent of the articles concerning equine increase for this decade.

In contrast to the large animal category, small animals showed a tremendous increase over the years. They comprised 24.4 % of all articles. During the period 1915 - 1920, small animals showed a 7.7 % proportion; this increased through to the 1961 - 1970 decade (38.7 %). The dog (canine) made the largest contribution, 19.8 % of all articles (31.7 % in the 1961 - 1970 decade).

Articles written, during the time-span of 1915 - 1970, concerning the following animals that have been classified in the miscellaneous category, are indicated below in absolute numbers:

1) Birds: Turkey (55), Duck (16), Pheasant (10), Psittacine bird (1), Parrot (2), Parakeet (12), Pigeon (7), Goose (7), Quail (7), Canary (4), Swan (2), Ostrich (2), Cow bird (*Molophrus ater*) (2), Bull Finch (*Pyrrhula europa*) (1), Squab (1), Grouse (1), Guinea Fowl (1), Sparrow (1), Dove (1), Peacock (1), Owl (1), Pekin Duck (1), Magpie (*Pica pica*) (1), Mynah Bird (1), Starling (1), Budgerigar (1), Penguin (1), Condor (1), Emu (1), McCormick Skuas (*Catharacta maccormicki*) (1), Falciform Bird (1)

2) Primates: Primate-Ape-Monkey (25), Chimpanzee (13), Baboon (*Papio*

anubis (5), Gorilla (4), Orangutan (3), Cebus Monkey (2), Squirrel Monkey (2), Rhesus Monkey (*Macaca mulatta*) (21), Macaque Monkey (2), Owl Monkey (2), Mangabey Monkey (1), Simian Primate (1), Ceropithius Monkey (1), Bush Baby (1), Formosan Monkey (1), Taiwan Monkey (1), Gelade Baboon (*Theropithecus gelada*) (1), Vermet Monkey (1), Babary Ape (*Macaca sylvana*) (1), Marmosa mitus (1), Woolly Monkey (1), Pinktailed macque (1), Marmoset (*saginus spp.*) (1), Green Monkey (1)

3) Fur and related animals: Rabbit (38), Mink (28), Chinchilla (19), Fox (27), Silver Fox (4), Ranch Fox (2), Coyote (1), Wolverine (1), Beaver (3), Badger (1), Raccoon (3), Opposum (4), Muskrat (1), Skunk (5), Squirrel (4), Ferret (2), Nutria (1), (Fur bearing felines and sea mammals are included below)

4) Felines: Lion (9), Tiger (6), Leopard (6), Ocelot (3), Wild Cat (1), Cheetah (1), Jaguar (1), Liger (Tiger + Lion) (1)

5) Marine Mammals: Marine Mammals (4), Dolphin (7), Porpoise (3), Seal (2), Sea Lion (6), Northern Fur Seal (1), Manatee (1), Cetacean (1), Walrus (1)

6) Bears: Bear (8), Black Bear (*Ursus americanus*) (1), Grisley Bear (*Ursus horribilis*) (1), Polar Bear (1), Malayan Sun Bear (1), Panda (1),

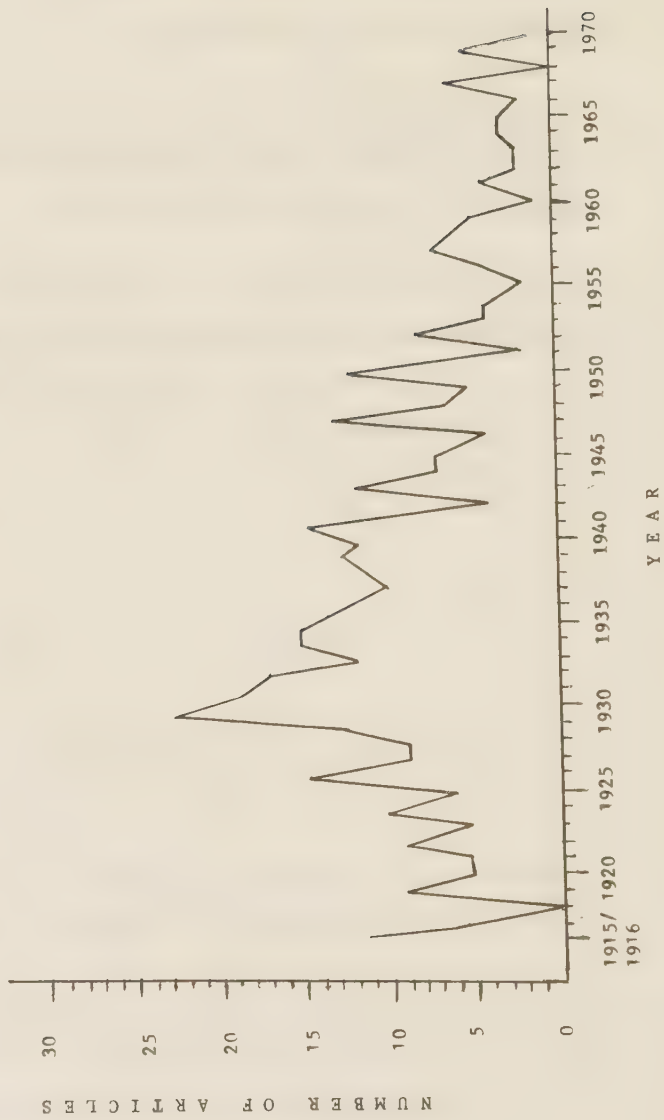
7) Ruminates: Deer (23), Reindeer (3), Moose (2), Elk (3), White tailed deer (2), Antelope (2), Camel (4), Buffalo (6), Bison (3), Water Buffalo (1), Caraboo (4), Musk Ox (1), Kudo (1), Giraffe (1), Zebu (1), Llama (1), Wild Goat (1)

8) Rodents: Rodent (1), Guinea Pig (17), Rat (18), Mouse (8),
Hamster (3), Ground Hog (1), Woodchuck (1)

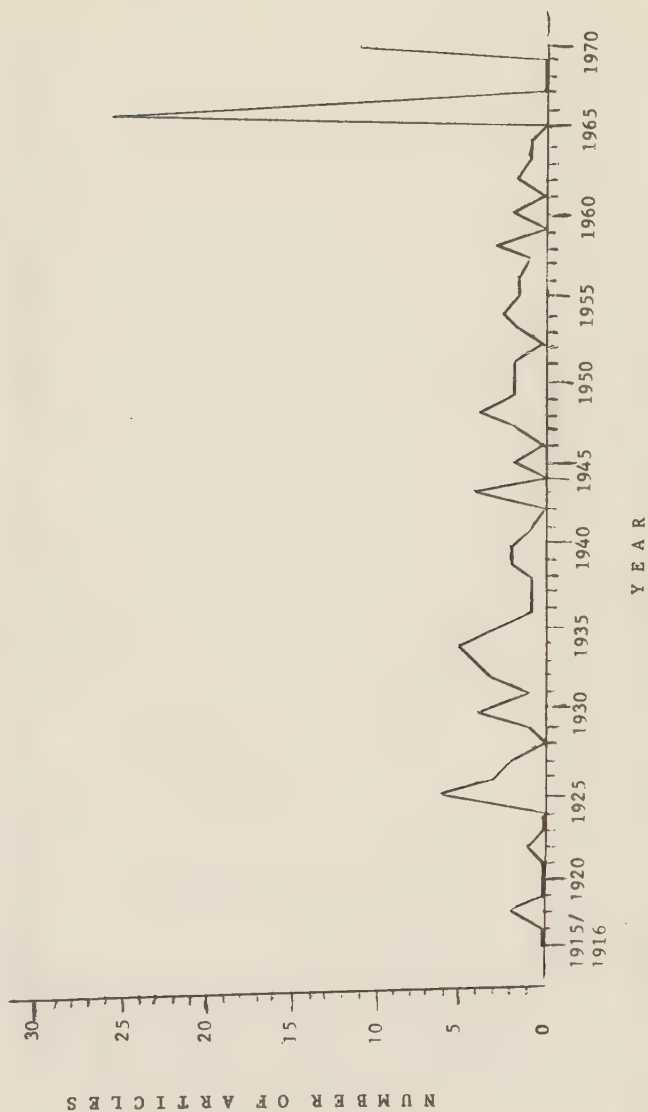
9) Reptiles and Amphibians: Reptile (2), Snake (2), Rattlesnake(1),
Cobra (1), Iguana (6), Lizard (1), Alligator (2), Crocodile (2),
Australian Skink (1), Turtle (2), Leopard Frog (1)

10) Others: Elephant (7), Rhinocerus (3), Hippopotamus (1), Wart
Hog (Phacochoerus acthiopcus) (1), Wallaby (3), Zebra (2), Bat (6),
Fish (5), Snail (1); Tse Tse Fly (1), Stable Fly (1), Dragon Fly (1),
Tabanus Fly (1), Bont Tick (1)

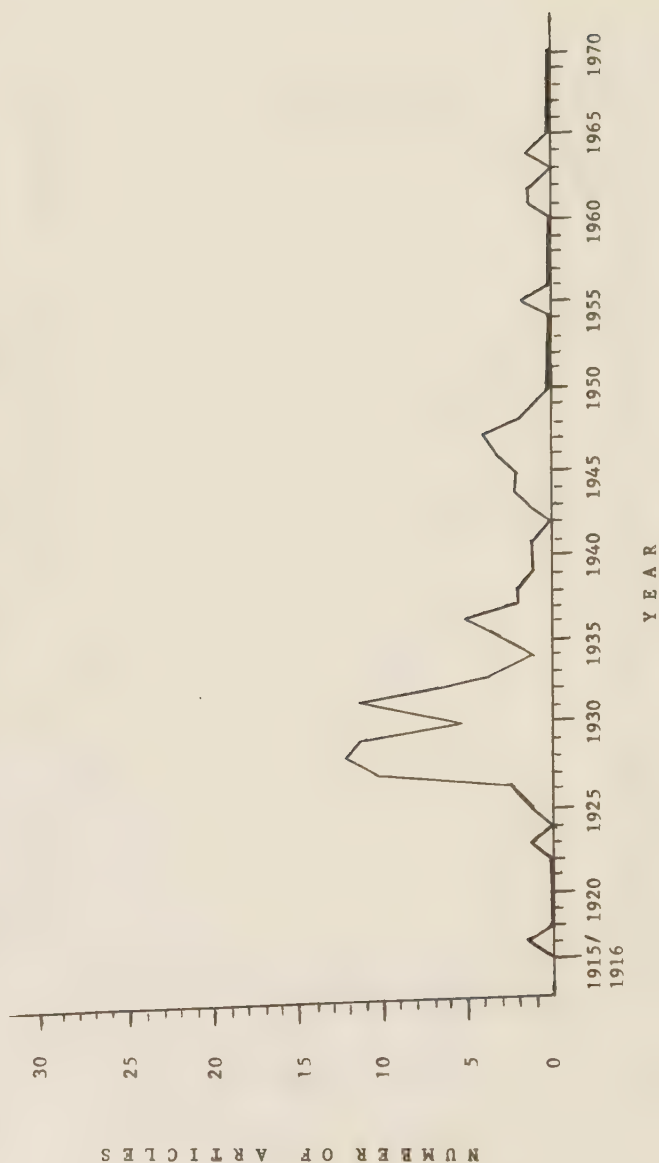
Graph IV. Total Number of Articles Concerning Brucellosis During the Time-Span 1915 - 1970



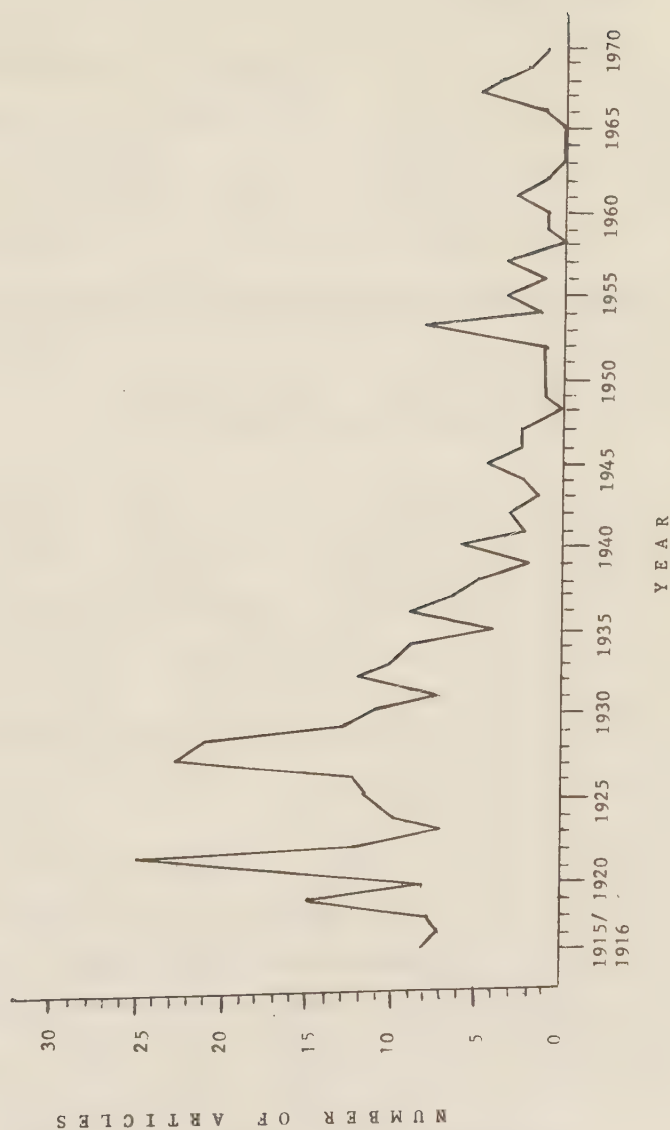
Graph V. /Total Number of Articles Concerning Distemper During the Time-Span 1915 - 1970



Graph VI. Total Number of Articles Concerning Pullorum During the Time-Span 1915 - 1970



Graph VII. Total Number of Articles Concerning Tuberculosis During the Time-Span 1915 - 1970



4. The Editorials

All editorials reviewed in this study were articles either written or sanctioned by the editor of the J.A.V.M.A. In each editorial, either the association's or the editor's views and opinions were stated. This section was also occasionally used as a source of information concerning issues pertinent to members of the association.

During the time-span 1915 - 1970, a total of 1,838 editorials were written. The largest number of editorials were written during the decade 1961 - 1970 (476); the least number of editorials were written during the period 1915 - 1920 (127) (see Table 18).

The most popular editorial topic during the entire period was "Humaneness and Law", amounting to 19.2 % of all categories surveyed. The second most popular topic was "Hygiene and Public Health", with a total of 12.4 % of all editorials, followed by "Education", with 10.5 %. "Fungus" was the least popular subject, numbering only .1 % of all editorials written, with "Obstetrics", "Teratology", and "Biochemistry" following, each numbering .2 % of all editorials (see Table 18).

During the decade 1961 - 1970, almost half of all editorials were written about "Humaneness and Law", numbering 46.6 % of all editorials written in the decade. This was due to a new section entitled, "News from Washington", the purpose of which was to keep members informed concerning new legislation and proposals in the nation's capital.

It is interesting to note that although the total number of original

articles and case reports written during the time-span 1941 - 1950 increased 30.3 % during the following decade (1951 - 1960), the editorials written decreased 36.2 % from the decades 1941 - 1950 to 1951 - 1960.

There have been increases in the relative percentages of editorials dealing with military topics and public health subjects during the time periods of the two World Wars and the major disease eradication programs respectively.

Table 18. Percent Distribution of Editorials According to Disciplines

Time-span:	1915- 1920	1921- 1930	1931- 1940	1941- 1950	1951- 1960	1961- 1970	1915 - 1970
Number of Articles: In Percentage from:	127	227	240	469	299	476	1838
Internal Medicine	.8	.9	.4	.4	5.0	.8	1.3
Pathology	-	-	-	1.7	1.3	.6	.8
Nutrition	1.6	1.8	3.8	3.4	3.0	.2	2.0
Meat Inspection	3.1	1.8	1.7	5.8	1.0	.2	2.3
Surgery	-	.9	1.7	.2	.7	1.5	.9
Obstetrics	-	-	.4	-	.7	-	.2
Teratology	-	-	-	.4	.3	-	.2
Parasitology	2.4	.4	3.8	.4	.7	.4	1.0
Pharmacology & Toxicology	5.5	3.5	3.3	3.6	6.4	2.7	3.9
Hygiene & Public Health	15.7	19.8	15.8	13.6	15.4	3.2	12.4
Milk & Udder Diseases	-	1.3	.8	.6	2.0	-	.8
Microbiology	3.9	7.1	7.0	2.8	12.0	1.7	5.2
Vaccination	(-)	(4.0)	(.4)	(1.1)	(3.7)	(1.1)	(1.7)
Virology	(.8)	(1.3)	(5.8)	(.6)	(3.0)	(.4)	(1.7)
Bacteriology	(3.1)	(1.8)	(.8)	(1.1)	(5.0)	(.2)	(1.7)
Fungus	(-)	(-)	(-)	(-)	(.3)	(-)	(.1)
Physiology	1.6	.4	.4	.2	.7	.2	.4
Biochemistry	1.6	.4	-	-	-	-	.2
Anatomy & Histology	-	.9	-	.2	.7	-	.3
Animal Breeding & Genetics	1.6	2.2	2.5	.9	1.7	.2	1.3
History	7.9	6.2	4.2	12.6	9.7	9.5	9.1
Humaneness & Law	8.7	14.1	12.9	7.9	6.4	46.6	19.2
General Practice	11.8	12.3	6.3	6.6	9.0	13.2	9.7
Economics	7.9	8.8	8.8	9.4	9.7	8.6	9.0
Chicken Raising	-	.4	1.7	.9	-	-	.5
Military	19.7	5.3	5.8	17.5	2.0	.8	7.8
Education	3.9	12.8	15.4	10.0	10.4	9.2	10.5
Psychology & Ethology	-	.4	2.5	-	1.0	.2	.6
Restraintment & Handling	-	-	.4	.6	.3	-	.3
Conservation & Ecology	2.4	-	.4	.2	-	-	.3

IV. Selected Articles of Special Interest in the Journal of the
American Veterinary Medical Association

Bergh, H. (1916): The treatment of Tetanus with tetanus antitoxin. 49:86.

Griessman, L. (1916): X-ray diagnosis in veterinary medicine. 49:830.

Williams, W. L. (1918): The avenue of invasion and the behavior of the infection of contagious abortion in the uterus. 52:13.

Price, L. (1918): A preliminary report on the intrapalpebral mallein test. 53:597.

Dykstra, R. (1919): A peculiar disease of sheep (Big head in sheep). 54:58.

Stone, W. E. (1919): The influence of the endocrine glands upon the animal body. 56:278.

Foster, J. P. (1921): Some observations relating to sex determination and the embryology of the uterus. 57:46.

Sisson, S. (1922): The viscera of the cow. 60:736.

Eichhorn, A., Lyon, B. (1922): Prophylactic vaccination of dogs against rabies. 61:38.

Dorset, M. et. al. (1923): Remarks on "Hog Flu". 62:162

Schofield, F. W. (1924): Damaged sweet clover: the cause of a new disease in cattle simulating hemorrhagic septicemia and blackleg. 64:553.

Bang, B. (1927): Bovine infectious abortion. 72:341.

- Fretz, W. J. (1927): Intrademic tuberculin reactions. 70:763.
- Eichhorn, A. (1928): The control of rabies by prophylactic vaccination. 72:1023.
- Patterson, E. E. (1928): The value of the X-ray in the diagnosis and treatment of fractures in small animals. 73:301.
- Grossman, J. D. (1929): The anatomy of the dog. 74:357.
- Kernkamp, H. C. H. (1929): Some of the physico-chemical properties of the virus of hog cholera. 74:844.
- Roderwick, L. M. (1937): The pathogenesis of ketosis: pregnancy disease of sheep. 90:41.
- Bush, D. L. (1951): Immediate effect of the atomic bomb on Japanese army animals with the Hiroshima Division. 118:221.
- Wagener, K. (1951): Hyperkeratosis of cattle in Germany. 119:113.
- Sikes, D., et. al. (1952): The experimental production of X disease (hyperkeratosis) in cattle. 121:337.
- Ott, R. L. (1955): Distemper in dogs. 126:290.
- Muth, O. H. (1955): White muscle disease (myopathy) in lambs and calves. 126:355.
- Harris, H. (1956): Brucellosis in veterinarians. 128:124.
- Schalm, O. W. (1957): Experiments and observations leading to development of the California Mastitis Test. 130:199.
- Jonas, S. and A. M. (1958): Fracture repair with the Jonas splint - five year report on all published cases. 133:318.

- Hafez, E. S. E. (1958): Techniques of collection and transplantation of ova in farm animals. 133:506.
- Weiner, D. (1958): Toxoplasmosis in animals. 133:546.
- Straub, O. C., et. al. (1960): Isolation of the virus of infectious bovine rhinotracheitis from range cattle. 137:661.
- Lagrace, A. (1961): Effect of selenium on white muscle disease. 138:188.
- York, C. J. (1961): Canine distemper immunization: studies on effectiveness of a 1 and 2 dose vaccination program. 138:298.
- Pierson, R. E. (1961): A review of surgical procedures for correction of vaginal prolapses in cattle. 139:532.
- Sis, R. F. (1963): Reconstruction of the canine ear canal with polytetrafluorethene implants. 143:295.
- Börnfors, S. et.al. (1964): Heredity aspects of hip dysplasia in German Shephard dogs. 145:15.
- Straub, O. C. , et. al. (1965): Standing left flank cesarean section in the cow. 147:377.
- Mosier, J. E. (1965): Feline dermatology. 147:1447.
- Lavignette, A. M. (1966): Keratoconjunctivitis sicca in a dog treated by transposition of the parotid salivary duct. 148:778.
- Fox, M. W. (1967): The place and future of animal behavior studies in veterinary medicine. 151:609.
- Clark, D. R., et. al. (1968): Teratology of fallot in the dog. 152:462.
- Rubin, G. J. (1968): Applications of electrocardiology in canine medicine. 153:17.

Klide, A. M. (1968): Epidural analgesia in the dog and cat. 153:165.

Antelyes, J. (1969): Human emotions and veterinary practice. 155:2018.

Zimmerman, W. J. (1970): Reproductive potential and muscle distribution of trichinella spiralis in swine. 156:770.

V. Historical Reflections

1917- The President authorizes the organization of a Veterinary Corps, National Army (General Orders No. 130).

1921- A new fashion of dyeing dogs has been reported in Paris.

1923- Miss Aleen Cust is the first woman veterinary surgeon in England.

1924- "Clover", the world's oldest horse, born June 15, 1871, died in his 53rd year (June 1924).

1927- A veterinarian is reputed to have opened a beauty shop for dogs in Paris.

State Troopers (police) were required to protect veterinarians from 75 farmers in Stewartstown, Pa.

1928- The chairman of the A.V.M.A. committee on distemper stated, " I do not think there is any doubt that the cause of canine distemper is a virus."

1929- North Carolina was the first state to complete Tuberculin testing of all cattle, and was declared the first accredited T. B. free state in October 1928.

Kentucky: A federal judge recently handed down a ruling that "murder trials" for dogs will end.

1930- Sing Sing Prison offered its facilities to parrots suspected of having "Parrot's Fever" (Psittacosis).

F. P. Cauhman speculated that "black tongue" is a nutritional disease.

1931- According to the Berliner Tierärztliche Wochenschrift, there are 1365 regular students enrolled in five veterinary colleges this year, located in Germany.

A Wisconsin judge decreed that if a motor vehicle and a cow met on a road, the cow has the right of way.

1932- A monkey in an English zoo recently committed suicide. He made a noose (slip knot) out of a rope and hanged himself.

1933- A reflection of the economic situation in 1933: a letter received by the editor, "As soon as I can collect any money I will pay my dues. As it is I can collect plenty of potatoes, beef, pork, and farm produce, but not enough money to buy gas for my car.... I must be content to know that we have our health and enough to eat and keep warm with."

A dog and cat received \$20,000 as beneficiaries of a trust fund.

- 1935- A ruling in Morristown, N. J. stated that the "No Dogs Allowed" sign is not applicable to "seeing-eye dogs".

It is reported that 30 % of the veterinarians in the U. S. A. and Germany have positive reactions to examinations for the Brucella organism.

- 1936- To manufacture 1,000,000 Ford cars, it requires:
3,200,000 pounds of wool, 800,000 sheep, 30,000 cattle (leather, glue, etc), 20,000 hogs (oil and bristles), 350,000 pounds of goat hair, 87,500 goats, and beeswax from 93 million bees.

- 1937- Dr. Helen Richt Irwin was the first woman veterinarian to hold an office in the A.V.M.A.

- 1938- When his usually placid, cud-chewing cow started jumping fences and cavorting about the pasture, a farmer called a veterinarian, who suggested the cow had been nibbling at marijuana and had become "tipsy".

- 1941- The first mention of the Stader Splint, April, 1941.

1946- The greater control of opium is named as one of the major achievements of the war.

1947- Dr. du Vigneud of Cornell University discovered a method of synthetically producing penicillin.

1953- The first live heifer was produced from frozen semen in the U. S. A.

A report on the first use of identical twins in studying a problem in veterinary medicine. Acta Agric. Scand., 4:95-208.

1958- The first successful caesarian section known is said to have been performed at the end of the fifteenth century by a German veterinary surgeon (a pig castrator) on his primiparous wife, with both mother and son surviving. Atti Socital Sci. Vet. (Sept. 1957) 356.

1961- The last World War II K-9 Corps dog died; he was given full military rites.

1963- The first U. S. chimpanzee in space, "Ham", was returned to a zoo.

1965- Dr. R. T. Thorpe of Chula Vista, California, was declared winner of the title, "World's Best Built Doctor".

There are about 300 women vets in the U. S. A. and Canada.

1970- A veterinarian accidentally vaccinated himself with canine rabies vaccine and suffered no ill effects.

VI. Summary

In 1915, the American Veterinary Medical Association purchased the American Veterinary Review to serve as its official publication. Its name was changed to the Journal of the American Veterinary Medical Association and was first published in October 1915.

The journal was issued monthly to the members of the American Veterinary Medical Association, and it became a semi-monthly publication in January 1956.

There were 10,871 articles published during the time-span from October 1915 to December 1970. Of these, 74.8 % (8,136) were original articles and 25.2 % (2,735) were case reports. In addition, there were 1,838 editorials written.

The articles have been classified as to Authorship, Discipline and Animal Species, as well as into time-spans.

There is a definite evidence of certain trends in scientific reporting over the years. There has been a definite trend in veterinary publications towards teamwork. For the time-span of 1915 - 1920, only 16.0 % of the original articles were written by more than one author, whereas in the decade 1960 - 1970. this figure amounted to 52.4 %. The parallel figures for case reports are 6.2 % and 66.2 %. There has been an overall decreasing trend in reporting on subjects concerning large animals. An increasing trend in subjects concerning small animals, in particular that of the dog, is also in evidence. Of all articles published those concerning the

ruminant had the largest representation with 28.2 %, followed by the dog with 19.8 %.

Of the original articles, Microbiology was the dominant discipline (20.8 %). The dominant discipline of the case reports was Internal Medicine (24.3 %). The most popular editorial topic was Humaneness and Law amounting to 19.2 % of all categories.

Certain trends have been seen during times of war and technological change.

VI. Zusammenfassung

"Journal of the American Veterinary Medical Association" eine quantitative Analyse der Veröffentlichungen der Jahre 1915 - 1970

Im Jahre 1915 hat die "American Veterinary Medical Association" die Zeitschrift "The American Veterinary Review" aufgekauft. Ab Oktober 1915 erschien sie unter dem Namen "Journal of the American Veterinary Medical Association" als offizielles Organ dieser Gesellschaft.

Die Zeitschrift erschien zunächst einmal, ab Januar 1956 zweimal monatlich.

Von Oktober 1915 bis Dezember 1970 wurden 10 871 Arbeiten veröffentlicht. Davon entfallen 74,8 % (8 136) auf Original - und 25,2 % (2 735) auf kasuistische Beiträge (case reports). Ausserdem wurden in demselben Zeitraum 1 838 Redaktionsartikel (editorials) veröffentlicht.

Die Veröffentlichungen wurden nach Autoren, Fachgebieten und Tierarten in einzelnen Zeitabschnitten ausgewertet, daraus sind bestimmte Trends ersichtlich.

Im Berichtszeitraum (1915 - 1970) ist eine deutliche Zunahme der Zusammenarbeit erkennbar. Nur 16,0 % der Originalbeiträge und 6,2 % der kasuistischen Beiträge wurden 1915 - 1920 von mehreren Autoren gemeinsam veröffentlicht. 1960 - 1970 waren es 52,4 % bzw 66,2 %.

Der allgemein rückläufigen Tendenz der Berichte über grosse Haustiere steht eine ständige Zunahme der Beiträge über kleine Haustiere, besonders über den Hund, gegenüber. Im gesamten Zeitraum sind Arbeiten über Wiederkauer mit 28,2 % am häufigsten vertreten; der Hund folgt mit 19,8 %.

Bei den Originalarbeiten ist die Mikrobiologie mit 20,8 %, bei den kasuistischen Beiträgen die Innere Medizin mit 24,3 % dominierend. Die häufigsten Redaktionsbeiträge behandelten Tierschutz und Gerichtliche Medizin (Humaneness and Law) mit 19,2 % aller Kategorien.

Parallel zu Kriegen und technologischen Änderungen sind bestimmte Trends festzustellen.

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X. Biography

The author, William Chester Tepper, was born in New York City on May 23, 1943. He is the son of David Tepper, a merchant, and Jenny Tepper, a secretary. He is married to Lynn Tepper B. A., M. S., an educational specialist for the United States Government, and has a daughter, Sharon.

In 1961, he was graduated from Yonkers High School in Yonkers, New York, afterwhich he attended Cornell University. During the year 1963, he was employed as a market research analyst in New York City. He received his Bachelor of Science degree from Cornell University in 1966.

He began his veterinary studies at the Free University of Berlin in the winter semester, 1966, and passed the veterinary medical state examination (tierärztliche Prüfung) in 1973.

